

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

<b>Inventor(s):</b> Young Hwa Kim et al.	<b>Examiner:</b> DAVIS, Jenna L.
<b>Appln. No.:</b> 10/734,686	<b>Group Art Unit:</b> 1794
<b>Filing Date:</b> December 12, 2003	<b>Confirmation No.:</b> 1211
<b>Title:</b> ABRASION AND HEAT RESISTANT FABRICS	<b>Customer No.:</b> 25764
	<b>Docket No.:</b> 78693 - 344308

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

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Elaine Raiten

## SUBMISSION OF CORRESPONDENCE IN OTHER APPLICATION(S)

The applicant hereby brings the following correspondence in one or more other applications to the Examiner's attention. Applicant makes no admission as to the materiality of the correspondence to the present application.

- (1) Office Action dated September 24, 2007, from Examiner Andrew T. Piziali, Art Unit 1771, for U.S. Pat. App. Ser. No. 10/273,409.

Respectfully submitted,

FAEGRE & BENSON LLP

By: 

Walter C. Linder, Reg. No. 31,707  
612/766-8801  
Customer No.: 25764

Dated: October 12, 2007



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/273,409

10/17/2002

Nicole Smith

H49.12-0001

732

25764 7590 09/24/2007  
FAEGRE & BENSON LLP  
PATENT DOCKETING  
2200 WELLS FARGO CENTER  
90 SOUTH SEVENTH STREET  
MINNEAPOLIS, MN 55402-3901

DOCKETED  
IFM

EXAMINER

PIZALI, ANDREW T

ART UNIT

PAPER NUMBER

1771

MAIL DATE

DELIVERY MODE

09/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Response to Final (2M): 11/24/2007

Response / Appeal (3M/Stat): 12/24/2007

Response / Appeal (6M/Final): 3/24/2008

# Office Action Summary

Application No.

10/273,409

Applicant(s)

SMITH ET AL.

Examiner

Andrew T. Piziali

Art Unit

1771

**- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -  
Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2007.  
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 68-93 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 68-93 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 19 February 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. The amendment filed on 2/14/2007 has been entered.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 71, 80 and 89 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The specification fails to describe the plates covering less than 10% of the top surface.

***Claim Rejections - 35 USC § 103***

4. Claims 68, 69, 71-73, 76-78, 80-82, 85-87 and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/07509 to Hoglund in view of USPN 3,925,034 to Anna.

Hoglund discloses a flexible scrubbing material comprising a continuous woven fabric having fibers and a top surface and a plurality of epoxy resin plates printed onto the top surface, the plates partially penetrating the woven fabric and bonded with the fibers (see entire document including page 3, lines 18-27, the paragraph bridging pages 7 and 8, and the Figures).

Hoglund does not specifically mention that the epoxy resin is cured and thus rigid, but Anna discloses that it is conventional to cure epoxy resins (see entire document including

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column 3, lines 40-51). It would have been obvious to one having ordinary skill in the art at the time the invention was made to cure the epoxy resin, motivated by a desire to increase the binding strength of the epoxy binder.

Regarding claims 69, 78 and 86, the epoxy resin plates comprise a plurality of abrasive particles (paragraph bridging pages 7 and 8).

Regarding claims 71, 80 and 89, the plates appear to cover less than 10% of the top surface (see Figures). In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the surface area occupied by the plates, such as less than 10%, because it is understood by one of ordinary skill in the art that grinding area determines grinding ability and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 72, 81 and 90, the woven fabric is a pattern. In addition, the placement of the plates forms a pattern on the top surface of the fabric.

Regarding claims 73, 82 and 91, a compressible layer may be coupled to the woven fabric (page 5, lines 30-34 and page 9, lines 23-31).

Regarding claim 76, the plurality of plates have a height and width that are generally the same (see Figures).

Regarding claim 85, the plurality of rigid plates define open channels extending across a substantial portion of the top surface (see Figures). The flexibility of the fabric and plate combination is generally the same in a plurality of different directions because the plates are equally spaced in a repeating pattern (see Figures).

5. Claims 70, 79 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/07509 to Hoglund in view of USPN 3,925,034 to Anna as applied to claims 68, 69, 71-73, 76-78, 80-82, 85-87 and 89-91 above, and further in view of USPN 5,310,590 to Tochacek.

Martin does not appear to disclose the fabric layer comprising cotton or a cotton/polyester blend, but Tochacek discloses that abrasive scrubbing fabrics may be made of cotton, polyester, or a combination thereof (see entire document including column 16, lines 15-18). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use cotton or cotton/polyester fabrics in the scrubbing article, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.

6. Claims 72, 81 and 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/07509 to Hoglund in view of USPN 3,925,034 to Anna as applied to claims 68, 69, 71-73, 76-78, 80-82, 85-87 and 89-91 above, and further in view of WO 00/76430 to Goyarts.

Goyarts discloses that it is known in the art to print a decorative pattern on a fabric layer (see entire document including page 12, lines 28-33). It would have been obvious to a person having ordinary skill in the art at the time of the invention to print a decorative pattern on the fabric for aesthetic reasons. The image would be visible because the plates are discontinuous.

7. Claims 74, 75, 83, 84, 92 and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/07509 to Hoglund in view of USPN 3,925,034 to Anna as applied to claims 68, 69, 71-73, 76-78, 80-82, 85-87 and 89-91 above, and further in view of USPN 5,671,498 to Martin.

Hoglund does not appear to specifically mention a second woven fabric having fibers enclosing the compressible foam layer and comprising a plurality of cured epoxy resin plates printed onto a top surface of the second woven fabric, but Martin discloses that it is known in the art to form a sandwich structure (see entire document including column 8, lines 23-35 and Figures 12 and 13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the claimed sandwich structure, motivated by a desire to provide a product with two grinding surfaces.

#### ***Response to Arguments***

8. Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/  
Primary Examiner, Art Unit 1771



<b>Notice of References Cited</b>	Application/Control No. 10/273,409	Applicant(s)/Patent Under Reexamination SMITH ET AL.	
	Examiner Andrew T. Piziali	Art Unit 1771	Page 1 of 1

#### U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-3,925,034	12-1975	Anna et al.	51/296
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

#### FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	WO 9607509 A1	03-1996	WIPO	HOGGLUND	
	O	WO 0076430 A1	12-2000	WIPO	GOYARTS	
	P					
	Q					
	R					
	S					
	T					

#### NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
 Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.